CLAIMS

1. An optical information recording medium, comprising at least a recording layer that changes its state to be different and optically detectable by irradiating with a light beam, an optical absorption layer composed of a material containing at least 50 at% and no more than 95 at% silicon, and a reflective layer composed of a material containing at least 95 at% silver and no more than 5 at% indium, with these layers provided in that order on a transparent substrate.

2. An optical information recording medium, comprising n-number of information layers from a first information layer to an n-th information layer (where n is an integer of at least 2) on a transparent substrate, the n-th information layer comprising a recording layer that changes its state to be different and optically detectable by irradiating with a light beam, an optical absorption layer composed of a material containing at least 50 at% and no more than 95 at% silicon, and a reflective layer composed of a material containing at least 95 at% silver and no more than 5 at% indium, with these layers provided in that order from the side closest to the transparent substrate.

3. The optical information recording medium according to Claim 1 or 2, wherein the reflective layer is in contact with the optical absorption layer.

4. The optical information recording medium according to any of Claims 1 to 3, wherein the material of the optical absorption layer contains scandium, yttrium, titanium, zirconium, hafnium, vanadium, niobium, tantalum, chromium, molybdenum, or tungsten.

5. The optical information recording medium according to any of Claims 1 to 4, comprising a lower dielectric layer between the transparent substrate and the recording layer.

6. The optical information recording medium according to Claim 5, comprising a lower interface layer between the recording layer and the lower dielectric layer.

7. The optical information recording medium according to Claim 6, wherein the material of the lower interface layer contains two or more compounds selected from among

compounds of the elements magnesium, calcium, yttrium, zirconium, hafnium, niobium, tantalum, chromium, molybdenum, tungsten, zinc, aluminum, gallium, indium, and silicon.

8. The optical information recording medium according to any of Claims 1 to 7, comprising an upper dielectric layer between the recording layer and the optical absorption layer.

9. The optical information recording medium according to Claim 6, comprising an upper interface layer between the recording layer and the upper dielectric layer.

10. The optical information recording medium according to Claim 9, wherein the material of the upper interface layer contains two or more compounds selected from among compounds of the elements magnesium, calcium, yttrium, zirconium, hafnium, niobium, tantalum, chromium, molybdenum, tungsten, zinc, aluminum, gallium, indium, and silicon.

11. A method for manufacturing an optical information recording medium comprising at least a recording layer that changes its state to be different and optically detectable by irradiating with a light beam, an optical absorption layer composed of a material containing at least 50 at% and no more than 95 at% silicon, and a reflective layer composed of a material containing at least 95 at% silver and no more than 5 at% indium, with these layers provided in that order on a transparent substrate,

wherein the pressure during manufacture is held at 0.01 Pa or lower so that the optical absorption layer and reflective layer are not exposed to the atmosphere while being continuously formed.

12. A method for manufacturing an optical information recording medium comprising n-number of information layers from a first information layer to an n-th information layer (where n is an integer of at least 2) on a transparent substrate, the n-th information layer comprising a recording layer that changes its state to be different and optically detectable by irradiating with a light beam, an optical absorption layer composed of a material containing at least 50 at% and no more than 95 at% silicon, and a reflective layer composed of a material containing at least 95 at% silver and no more than 5 at% indium, with these layers provided in that order from the side closest to the transparent substrate,

wherein the pressure during manufacture is held at 0.01 Pa or lower so that the optical absorption layer and reflective layer are not exposed to the atmosphere while being continuously formed.